SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT:
(A) NAME: Commonwealth Scientific and Industrial Research Organisation
(B) STREET: Limestone Avenue
(C) CITY: Campbell
(D) STATE: ACT
(E) COUNTRY: Australia
(F) POSTAL CODE (ZIP): 2601

(A) NAME: Goodman Fielder Limited
(B) STREET: Level 42 Grosvenor Place
(C) CITY: Sydney
(D) STATE: NSW
(E) COUNTRY: Australia
(F) POSTAL CODE (ZIP): 2000

(A) NAME: Groupe Limagrain Pacific Pty Ltd
(B) STREET: Level 31, 1 O'Connell Street
(C) CITY: Sydney
(D) STATE: NSW
(E) COUNTRY: Australia
(F) POSTAL CODE (ZIP): 2000

(ii) TITLE OF INVENTION: Modified Proteins

(iii) NUMBER OF SEQUENCES: 26

(iv) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

GTCATGAGGC AACTAAACCC TTGCAGCCAA GAGTTGCAAT C 41

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

GGATCCCTAG ACCATACTCC ATATGCATGA AGCTTGTTGG GGGACTGGTT G 51

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

CAAGCTTGTA CCACTCCCAC CGCC 24

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CCATATGCAC CGCCAGGTGT CAGTCAC 27

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GTCGGCAATG AAGATTGCAC C 21

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TCCAACTGCG TTCTCCTCTT GGCC 24

(2) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

GGATCCCTAG CTCCACTGAG ACTC 24

(2) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

TGCGCTCAAG CTTTAGGCAA TGAAGATTGC ACC 33

(2) INFORMATION FOR SEQ ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

CATACTCCAT ATGCAGCTCC ACTGAGACTC 30

(2) INFORMATION FOR SEQ ID NO: 10:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

CAAGCTTACG ATGTTGCTGG CGGG 24

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

CCATATGCAC CAGTAATAGC CAATAGTGC 29

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

CAACCATGTC CTGAACCTTC ACC 23

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

TGGCTGTTGA GGTTGCAC 18

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 140 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

ATAGAATACA GCATGCTCCC GGCCGCCATG GCCGCGGGAT TGTCATGAGG CAACTAAACC 60

CTTGCAGCGT CCCCCAACAA GCTTCATGCA TATGGAGTAT GGTCTAGGGA TCCGGGTACC 120

GAGCTCGAAT TCGCCCTATA 140

(2) INFORMATION FOR SEQ ID NO: 15:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

Met Arg Gln Leu Asn Pro Cys Ser Val Pro Gln Gln Ala Ser Cys Ile
1 5 10 15

Trp Ser Met Val
20

(2) INFORMATION FOR SEQ ID NO: 16:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 243 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CAAGCTTTGA AAGCCGCTAC TGCGACAGCA GCTGGATCAT TGCTTGTGCT ATCCGGACTA 60

ATACTAGCTG GCACAGTCAT AGCACTCACA GTGGCCACAC CAGTGCTAGT CATATTTAGC 120

CCAGTGCTAG TGCCAGCGGC CATAGCCCTA GCGCTAATGT CAGCAGGCTT TGTCACGTCA 180

GGCGGGCTGG GCGTGGCTGC GCTGAGCTCC TTTAGTGTGT TAGCCAATAC TGCCTGCATA 240

TGG 243

(2) INFORMATION FOR SEQ ID NO: 17:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 81 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

Gln Ala Leu Lys Ala Ala Thr Ala Thr Ala Ala Gly Ser Leu Leu Val
1 5 10 15

Leu Ser Gly Leu Ile Leu Ala Gly Thr Val Ile Ala Leu Thr Val Ala
20 25 30

Thr Pro Val Leu Val Ile Phe Ser Pro Val Leu Val Pro Ala Ala Ile
35 40 45

Ala Leu Ala Leu Met Ser Ala Gly Phe Val Thr Ser Gly Gly Leu Gly
50 55 60

Val Ala Ala Leu Ser Ser Phe Ser Val Leu Ala Asn Thr Ala Cys Ile
65 70 75 80

Trp

(2) INFORMATION FOR SEQ ID NO: 18:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 477 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

ATGAGGCAAC TAAACCCTTG CAGCCAAGAG TTGCAATCAC CACAACAATC ATATCTGCCG 60

CAGCCATATC CACAAAACCC ATATCTACCG CAAAAACCAT TTCCAGTGCA GCAACCGTTT 120

CACACACCCC AACAATATTT CCCCTATCTA CCAGAGGAAT TGTTTCCCCA ATATCAAATA 180

CCAACCCCCC TACAACCACA ACAACCATTC CCCCAACAAC CACAACAACC TCTTCCTCGG 240

CCCCAACAAC CATTCCCCTG GCAACCACAA CAACCATTTC CCCAGCCCCA AGAACCAATT 300

CCCCAACAAC CATTCCCCTG GCAACCACAA CAACCATTTC CCCAGCCCCA AGAACCAATT 360

CAACAAATAA TTTTCCAGCA ACCCCAACAA TCATACCCTG TGCAACCTCA ACAGCCATTT 420

CCTCAACAAC CTCAACCAGT CCCCCAACAA GCTTCATGCA TATGGAGTAT GGTCTAG 477

(2) INFORMATION FOR SEQ ID NO: 19:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 158 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

Met Arg Gln Leu Asn Pro Cys Ser Gln Glu Leu Gln Ser Pro Gln Gln
1 5 10 15

Ser Tyr Leu Gln Gln Pro Tyr Pro Gln Asn Pro Tyr Leu Pro Gln Lys
20 25 30

Pro Phe Pro Val Gln Gln Pro Phe His Thr Pro Gln Gln Tyr Phe Pro
35 40 45

Tyr Leu Pro Glu Glu Leu Phe Pro Gln Tyr Gln Ile Pro Thr Pro Leu
50 55 60

Gln Pro Gln Gln Pro Phe Pro Gln Gln Pro Gln Gln Pro Leu Pro Arg
65 70 75 80

Pro Gln Gln Pro Phe Pro Trp Gln Pro Gln Gln Pro Phe Pro Gln Pro
85 90 95

Gln Glu Pro Ile Pro Gln Gln Pro Gln Gln Pro Phe Pro Gln Gln Pro
100 105 110

Gln Gln Pro Phe Pro Gln Gln Pro Gln Gln Ile Ile Phe Gln Gln Pro
115 120 125

Gln Gln Ser Tyr Pro Val Gln Pro Gln Gln Pro Phe Pro Gln Gln Pro
130 135 140

Gln Pro Val Pro Gln Gln Ala Ser Cys Ile Trp Ser Met Val
145 150 155

(2) INFORMATION FOR SEQ ID NO: 20:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 338 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

AAGCTTCTAC CACTCCCACC GCCGTGGCTG TGACTTTCGA TCTGACAGCT ACCACCACCT 60

ACGGCGAGAA CATCTACCTG GTCGGATCGA TCTCTCAGCT GGGTGACTGG GAAACCAGCG 120

ACGGCATAGC TCTGAGTGCT GACAAGTACA CTTCCAGCGA CCCGCTCTGG TATGTCACTG 180

TGACTCTGCC GGCTGGTGAG TCGTTTGAGT ACAAGTTTAT CCGCATTGAG AGCGATGACT 240

CCGTGGAGTG GGAGAGTGAT CCCAACCGAG AATACACCGT TCCTCAGGCG TGCGGAACGT 300

CGACCGCGAC GGTGACTGAC ACCTGGCGGT GCATATGG 338

(2) INFORMATION FOR SEQ ID NO: 21:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 112 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Ala Ser Thr Thr Pro Thr Ala Val Ala Val Thr Phe Asp Leu Thr Ala
1 5 10 15

Thr Thr Thr Tyr Gly Glu Asn Ile Tyr Leu Val Gly Ser Ile Ser Gln
20 25 30

Leu Gly Asp Trp Glu Thr Ser Asp Gly Ile Ala Leu Ser Ala Asp Lys
35 40 45

Tyr Thr Ser Ser Asp Pro Leu Trp Tyr Val Thr Val Thr Leu Pro Ala
50 55 60

Gly Glu Ser Phe Glu Tyr Lys Phe Ile Arg Ile Glu Ser Asp Asp Ser
65 70 75 80

Val Glu Trp Glu Ser Asp Pro Asn Arg Glu Tyr Thr Val Pro Gln Ala
85 90 95

Cys Gly Thr Ser Thr Ala Thr Val Thr Asp Thr Trp Arg Cys Ile Trp
100 105 110

(2) INFORMATION FOR SEQ ID NO: 22:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 371 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

AAGCTTTCGG CAATGAAGAT TGCACCCCAT GGATGAGTAC TCTGATCACT CCACTCCCAA 60

GCTGCCGTGA CTATGTGGAA CAACAAGCAT GTCGCATCGA AACGCCCGGG TCGCCGTACC 120

TCGCCAAGCA GCAGTGCTGT GGGGAGCTTG CAAACATTCC GCAGCAGTGC CGATGCCAGG 180

CGCTGCGCTA CTTCATGGGG CCGAAGTCTC GTCCGGATCA GAGCGGCCTC ATGGAACTCC 240

CCGGATGCCC TAGGGAGGTG CAGATGGACT TCGTGAGGAT ACTCGTCACG CCGGGGTACT 300

GCAACTTGAC GACCGTTCAC AACACTCCGT ACTGCCTCGC TATGGAGGAG TCTCAGTGGA 360

GCTGCATATG G 371

(2) INFORMATION FOR SEQ ID NO: 23:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 123 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

Ala Ile Gly Asn Glu Asp Cys Thr Pro Trp Met Ser Thr Leu Ile Thr
1 5 10 15

Pro Leu Pro Ser Cys Arg Asp Tyr Val Glu Gln Gln Ala Cys Arg Ile
20 25 30

Glu Thr Pro Gly Ser Pro Tyr Leu Ala Lys Gln Gln Cys Cys Gly Glu
35 40 45

Leu Ala Asn Ile Pro Gln Gln Cys Arg Cys Gln Ala Leu Arg Tyr Phe
50 55 60

Met Gly Pro Lys Ser Arg Pro Asp Gln Ser Gly Leu Met Glu Leu Pro
65 70 75 80

Gly Cys Pro Arg Glu Val Gln Met Asp Phe Val Arg Ile Leu Val Thr
85 90 95

Pro Gly Tyr Cys Asn Leu Thr Thr Val His Asn Thr Pro Tyr Cys Leu
100 105 110

Ala Met Glu Glu Ser Gln Trp Ser Cys Ile Trp
115 120

(2) INFORMATION FOR SEQ ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 123 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

Ala Ile Gly Asn Glu Asp Cys Thr Pro Trp Thr Ser Thr Leu Ile Thr
1 5 10 15

Pro Leu Pro Ser Cys Arg Asn Tyr Val Glu Glu Gln Ala Cys Arg Ile
20 25 30

Glu Met Pro Gly Pro Pro Tyr Leu Ala Lys Gln Glu Cys Cys Glu Gln
35 40 45

Leu Ala Asn Ile Pro Gln Gln Cys Arg Cys Gln Ala Leu Arg Tyr Phe
50 55 60

Met Gly Pro Lys Ser Arg Pro Asp Gln Ser Gly Leu Met Glu Leu Pro
65 70 75 80

Gly Cys Pro Arg Glu Val Gln Met Asn Phe Val Pro Ile Leu Val Thr
85 90 95

Pro Gly Tyr Cys Asn Leu Thr Thr Val His Asn Thr Pro Tyr Cys Leu
100 105 110

Gly Met Glu Glu Ser Gln Trp Ser Cys Ile Trp
115 120

(2) INFORMATION FOR SEQ ID NO: 25:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 377 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

AAGCTTACGA TGTTGCTGGC GGGGGTGGTG CTCAACAATG CCCTGTAGAG ACAAAGCTAA 60

ATTCATGCAG GAATTACCTG CTAGATCGAT GCTCAACGAT GAAGGATTTC CCGGTCACCT 120

GGCGTTGGTG GAAATGGTGG AAGGGAGGTT GTCAAGAGCT CCTTGGGGAG TGTTGCAGTC 180

GGCTCGGCCA AATGCCACCG CAATGCCGCT GCAACATCAT CCAGGGGTCA ATCCAAGGCG 240

ATCTCGGTGG CATCTTCGGA TTTCAGCGTG ATCGGGCAAG CAAAGTGATA CAAGAAGCCA 300

AGAACCTGCC GCCCAGGTGC AACCAGGGCC CTCCCTGCAA CATCCCCGGC ACTATTGGCT 360

ATTACTGGTG CATATGG 377

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 125 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

Ala Tyr Asp Val Ala Gly Gly Gly Gly Ala Gln Gln Cys Pro Val Glu
1 5 10 15

Thr Lys Leu Asn Ser Cys Arg Asn Tyr Leu Leu Asp Arg Cys Ser Thr
20 25 30

Met Lys Asp Phe Pro Val Thr Trp Arg Trp Trp Lys Trp Trp Lys Gly
35 40 45

Gly Cys Gln Glu Leu Leu Gly Glu Cys Cys Ser Arg Leu Gly Gln Met
50 55 60

Pro Pro Gln Cys Arg Cys Asn Ile Ile Gln Gly Ser Ile Gln Gly Asp
65 70 75 80

Leu Gly Gly Ile Phe Gly Phe Gln Arg Asp Arg Ala Ser Lys Val Ile
85 90 95

Gln Glu Ala Lys Asn Leu Pro Pro Arg Cys Asn Gln Gly Pro Pro Cys
100 105 110

Asn Ile Pro Gly Thr Ile Gly Tyr Tyr Trp Cys Ile Trp
115 120 125